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EXAMINER	
MEW, KEVIN D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/912,814	Applicant(s) HAUMONTE ET AL.	
	Examiner Kevin Mew	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 01 May 2007.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-31 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Final Action

Response to Amendment

1. Applicant's Remarks/Arguments filed on 5/1/2007 have been considered.

Claims 1-31 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 23-24, 26-27, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. (USP 5,701,294) in view of Tong et al. (US Publication 2001/0038630 A1).

Regarding claims 1, 31, Ward discloses system to perform a method of wirelessly transmitting voice over a plurality of carriers (**radio channels**, col. 3, lines 57-67) between a base station and a plurality of users (**between the base station and a plurality of users**, col. 3, lines 39-52), the method comprising:

determining a transmission link quality between a user and the base station (**monitors radio channel quality both on an uplink and on a downlink between a mobile station and a serving base station in order to optimize the voice quality for the measured conditions**, see col. 3, lines 39-67);

assigning a class type to the user (**combination type**) based upon the transmission link quality (**combination type is identified based on channel quality**, see col. 3, lines 39-67); and

adjusting a number of subcarriers (**dynamically changing the voice quality of the plurality of radio channels by selecting the optimum combination type**, see col. 6, lines 46-60; note that each radio channel corresponds to a carrier) and one or more of timeslots, modulation rate, coding rate and transmit power allocated (**dynamically adapts the number of time slots allocated to each radio channel**, see col. 4, lines 9-16).

Ward does not explicitly show the multicarrier communication signal and selecting sub-carrier(s) of the one or more sub-carriers comprising the multi-carrier communication signal for transmission with the user based upon the class type.

However, Tong discloses a wireless TDMA system transmitting a multi-carrier signal that comprises multiple carriers, with each carrier corresponds to a forward radio channel F-CH (**Carrier-1, Carrier-2, Carrier-3**, see paragraph 0033 and Fig. 1B). Tong further discloses selecting a carrier or a number of carriers to service user terminals such that it will place voice communications on one carrier and data communications on other carriers based on the classes of service and data rates required (see paragraphs 0035, 0036, 0041, 0042, 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication system of Ward with the teaching of Tong in selecting carrier(s) for transmission between a base station and mobile users in accordance based on the classes of services and data rates required such that Ward will transmit the multicarrier communication signal and select sub-carrier(s) of the one or more sub-carriers

comprising the multi-carrier communication signal for transmission with the user based upon the class type.

The motivation to do so is to optimize the operation of the cell/sector serviced by the carriers by meeting the minimum grades of service for the users and maximizing the multi-carrier throughput.

Regarding claim 2, Ward discloses the method of claim 1, wherein the channelization mode determines a quantity of frequency spectrum (**total user bit rate**) allocated for transmission between the user and the base station (**channel coding determines the total user bit rate in a cellular radio system**, see col. 2, lines 33-38).

Regarding claim 3, Ward discloses the method of claim 2, wherein the quantity of frequency spectrum allocated (**total user bit rate**) is for the duration of a particular transmission time slot (**user bit rate is associated with a particular time slot**, see col. 9, Table II).

Regarding claim 23, Ward further discloses the method of claim 1, wherein the transmission link quality between the user and the base station is determined dynamically (see col. 3, lines 39-56).

Regarding claim 24, Ward further the method of claim 1, wherein the transmission link quality between the user and the base station is determined periodically (**the system**

continuously monitors channel quality both on an uplink and on a downlink, see col. 3, lines 39-56).

Regarding claim 26, Ward further discloses the method of claim 1, wherein determining a transmission quality comprises estimating an SNR of signal transmission between the base station and the user (**Carrier-to-Interference ratio C/I**, see col. 5, lines 29-45).

Regarding claim 27, Ward further discloses the method of claim 1, wherein determining a transmission quality comprises estimating a PER of data transmitted between the base station and the user (**Bit Error Rate**, see col. 8, lines 24-49).

Regarding claim 30, Ward discloses a method of transmitting a plurality of sub-carriers (**radio channels**, col. 3, lines 57-67) from a base station to a plurality of users (**from the base station to a plurality of users**, col. 3, lines 39-52), the method comprising:

transmitting information from the base station to a subscriber unit (**downlink transmission**, see col. 3, lines 39-67);

receiving from the subscriber a transmission link quality between a user and the base station (**monitors channel quality on an uplink**, see col. 3, lines 39-67),

assigning a class type to the user (**combination type**) based upon the transmission link quality (**combination type is identified based on channel quality**, see col. 3, lines 39-67); and

setting a number of subcarriers (**dynamically changing the voice quality of the plurality of radio channels by selecting the optimum combination type**, see col. 6, lines 46-

60; note that each radio channel corresponds to a carrier) and one or more of timeslots, modulation rate, coding rate and transmit power allocated (**dynamically adapts the number of time slots allocated to each radio channel**, see col. 4, lines 9-16).

Ward does not explicitly show transmitting the multi-carrier communication signal and selecting sub-carrier(s) of the one or more sub-carriers comprising the multi-carrier wireless communication signal for transmission with the user based upon the class type.

However, Tong discloses a wireless TDMA system transmitting a multi-carrier signal that comprises multiple carriers, with each carrier corresponds to a forward radio channel F-CH (**Carrier-1, Carrier-2, Carrier-3**, see paragraph 0033 and Fig. 1B). Tong further discloses selecting a carrier or a number of carriers to service user terminals such that it will place voice communications on one carrier and data communications on other carriers based on the classes of service and data rates required (see paragraphs 0035, 0036, 0041, 0042, 0045).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the wireless communication system of Ward with the teaching of Tong in selecting carrier(s) for transmission between a base station and mobile users in accordance based on the classes of services and data rates required such that Ward will transmit the multicarrier communication signal and select sub-carrier(s) of the one or more sub-carriers comprising the multi-carrier communication signal for transmission with the user based upon the class type.

3. Claims 4-5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong, and in further view of Freeburg et al. (USP 5,134,615).

Regarding claim 4, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 2 above, except fails to explicitly show the method of claim 2, wherein the allocated frequency spectrum comprises contiguous frequency slots.

However, Freeburg discloses a TDMA system in which its frequency channels are contiguous (see col. 2, lines 11-28 and Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of contiguous frequency channels in Freeburg such that the frequency channels in Ward are contiguous. The motivation to do so is to provide a continuous range of frequency spectrum to support a greater flexibility in managing the number and type of different communication devices.

Regarding claim 5, the combined method of Ward, Tong, Freeburg discloses all the aspects of the claimed invention set forth in the rejection of claim 2 above. Tong further discloses the frequency slots comprise multi-carrier signals (**Carrier-1, Carrier-2, Carrier-3,** see Fig. 1B).

Regarding claim 7, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 2 above, except fails to explicitly show

the method of claim 2, wherein the allocated frequency spectrum comprises non-contiguous frequency slots.

However, Freeburg discloses a TDMA system in which its frequency channels are not contiguous (**only channel 2, time slot 2**, see col. 2, lines 11-28 and Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of non-contiguous frequency channels in Freeburg such that the frequency channels in Ward are not contiguous. The motivation to do so is to accommodate for communication devices that demand less data throughput.

Regarding claim 8, Ward discloses all the aspects of the claimed invention set forth in the rejection of claim 7 above. Tong further discloses the frequency slots comprise multi-carrier signals (**Carrier-1, Carrier-2, Carrier-3**, see Fig. 1B).

4. Claims 6, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong and Freesburg, and in further view of Chen (US Publication 2005/0059401).

Regarding claim 6, the combined method of Ward, Tong, and Freesburg discloses all the aspects of the claimed invention set forth in the rejection of claim 4 above, except fails to explicitly show the method of claim 4, wherein the frequency slots comprise single carrier signals.

However, Chen discloses a TDMA system that can employ single-carrier modulation technique (see paragraph 0016). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of using single-carrier modulation in Chen such that the frequency channels of Ward utilizes single-carrier modulation. The motivation to do so is to allow data transmission in a single frequency band in accordance with the system needs.

Regarding claim 9, the combined method of Ward, Tong, and Freesburg discloses all the aspects of the claimed invention set forth in the rejection of claim 7 above, except fails to explicitly show the method of claim 7, wherein the frequency slots comprise single carrier signals.

However, Chen discloses a TDMA system that can employ single-carrier modulation technique (see paragraph 0016). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of using single-carrier modulation in Chen such that the frequency channels of Ward utilizes single-carrier modulation. The motivation to do so is to allow data transmission in a single frequency band in accordance with the system needs.

5. Claims 10, 12-13, 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong, and in further view of Gitlin et al. (USP 6,064,662).

Regarding claims 10, 12-13, 17-22, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 1 above, except fails to explicitly show the method of claim 1, further comprising:

communicating the class type of the user to a MAC scheduler;

the MAC scheduler scheduling all transmission between the base station and the user by assigning transmission frequency slots and transmission time slots to the user, wherein a number of frequency slots assigned to the user per time slot is based on the class type of the user.

wherein the class type of each of the users determines a priority in the MAC scheduler assignment of predefined transmission frequency slots and transmission time slots to the users.

However, Gitlin discloses a method and system to schedule data transmission for users by assigning frequency bands on a time slot-by-slot basis, wherein the scheduling is based on the data speed demand of users and medium availability (see col. 4, lines 54-67 and col. 5, lines 1-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of scheduling data transmission for users based on the individual user needs and medium availability in Gitlin such that a scheduling mechanism (actual positioning/priority of the various speed users) will be used to allocate frequency and time slots to users which is based on the combination type, as disclosed in Ward, assigned to a user. The motivation to do so is to perform optimum frequency and time slots allocation based on the associated combination type associated with the user.

Regarding claim 12, the combined method of Ward, Tong, and Gitlin discloses. Ward also discloses the number of frequency slots assigned to the user per time slot (**total data rate**) is further based on a quality of service associated with the user (**based on the modulation service being applied to user**, see col. 9, Table II).

Regarding claim 13, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Tong further discloses the frequency slots comprise multi-carrier signals (Carrier-1, Carrier-2, Carrier-3, see Fig. 1B).

Regarding claim 17, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Gitlin further discloses the frequency slots are interleaved (see Figs. 5 and 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality in Ward and Gitlin with the teaching of frequency slots interleaving in Gitlin such that the frequency slots are interleaved. The motivation to do so is to partition the transmission medium in frequency and time in order to maximize the spectral efficiency and to accommodate a wide range of user access rates.

Regarding claim 18, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Ward further

discloses a maximum possible number of frequency slots assigned to the user per time slot (**total data rate**) is based on the class type of the user (**based on combination type**, see col. 9, Table II).

Regarding claim 19, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Ward further discloses the method of claim 18, wherein the maximum possible number of frequency slots assigned to the user per time slot (**total data rate**) is further based on real-time system traffic load between the base station and the plurality of users (**based on the channel quality estimation of each of the radio channn**els, see col. 10, lines 37-59).

Regarding claim 20, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Ward further discloses the method of claim 18, wherein the maximum possible number of frequency slots assigned to the user per time slot (**total data rate**) is further based on a quality of service associated with the user (**based on the modulation service being applied to user**, see col. 9, Table II).

Regarding claim 21, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above. Ward further discloses the method of claim 10, wherein predetermined frequency slots (**total data rate**) within

predetermined time slots (**time slots**) are allocated for transmission with users having a particular class type (**combination type**, see col. 9, Table II).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong and Gitlin, and in further view of Chen et al. (US Publication 2005/0059401).

Regarding claim 14, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, except fails to explicitly show the method of claim 10, wherein the frequency slots comprise single carrier signals.

However, Chen discloses a TDMA system that can employ single-carrier modulation technique (see paragraph 0016). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of using single-carrier modulation in Chen such that the frequency channels of Ward utilizes single-carrier modulation. The motivation to do so is to allow data transmission in a single frequency band in accordance with the system needs.

7. Claims 11, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong and Gitlin, and in further view of Freeburg et al. (USP 5,134,615).

Regarding claim 11, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, except fails to

disclose the number of frequency slots assigned to the user per time slot is further based on real-time system traffic load between the base station and the plurality of users.

However, Freeburg discloses a different number of frequency channels can be dynamically allocated to mobile station per time slot (see col. 2, lines 11-44 and Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of assigning different number of frequency channels per time slot in Freeburg. The motivation to do so is to increase the flexibility in accommodating different TDMA devices and different data throughput requirements.

Regarding claim 15, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, except fails to explicitly show the method of claim 10, wherein the allocated frequency spectrum comprises contiguous frequency slots.

However, Freeburg discloses a TDMA system in which its frequency channels are contiguous (see col. 2, lines 11-28 and Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality of Ward with the teaching of contiguous frequency channels in Freeburg such that the frequency channels in Ward are contiguous. The motivation to do so is to provide a continuous range of frequency spectrum to support a greater flexibility in managing the number and type of different communication devices.

Regarding claim 16, the combined method of Ward, Tong, and Gitlin discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, except fails to explicitly show the method of claim 10, wherein the allocated frequency spectrum comprises non-contiguous frequency slots.

However, Freeburg discloses a TDMA system in which its frequency channels are not contiguous (**only channel 2, time slot 2**, see col. 2, lines 11-28 and Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality in Ward with the teaching of Freeburg in using non-contiguous frequency channels such that the frequency channels in Ward are not contiguous. The motivation to do so is to accommodate for communication devices that demand less data throughput.

8. Claims 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong et al., and in further view of Flynn (USP 5,870,685).

Regarding claim 25, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 1 above, except fails to explicitly show the method of claim l, wherein the transmission link quality between the user and the base station is determined when the user is powered up.

However, Flynn discloses that when a mobile station is powered up, it will search control channels in order to find a control channel with good reception quality (see col. 2, lines 26-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the

channel quality in Ward with the teaching of Flynn in determining channel link quality when the mobile station is powered up. The motivation to do so is for the mobile station to find the best radio channel upon powering up and remains tuned to this channel until the quality deteriorates.

9. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tong, and in further view of Chuah (USP 6,115,390).

Regarding claim 28, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, and each of the plurality of users are assigned a class type (see col. 9, Table II), except fails to explicitly show the method of claim 10, and the MAC assigns frequency slots to users having a common class type according to a round robin scheduling scheme.

However, Chuah discloses a base station scheduler that schedules bandwidth to users based on a round-robin algorithm (see col. 30, lines 32-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality in Ward with the teaching of Chuah in scheduling bandwidths to users based on a round-robin algorithm. The motivation to do so is to provide a method to efficiently resolve conflicts between mobile users competing for the limited bandwidth available in a wireless network.

Regarding claim 29, the combined method of Ward and Tong discloses all the aspects of the claimed invention set forth in the rejection of claim 10 above, and each of the plurality of users are assigned a class type (see col. 9, Table II), except fails to explicitly show the method of

claim 10, and the MAC assigns frequency slots to users having different class types according to a round robin scheduling scheme.

However, Chuah discloses a base station scheduler that schedules bandwidth to users based on a round-robin algorithm (see col. 30, lines 32-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dynamic user bit rate allocation of a TDMA system based on the channel quality in Ward with the teaching of Chuah in scheduling bandwidths to users based on a round-robin algorithm. The motivation to do so is to provide a method to efficiently resolve conflicts between mobile users competing for the limited bandwidth available in a wireless network.

Response to Arguments

10. Applicant's arguments filed on 5/1/2007 with respect to claims 1-31 have been considered but they are not persuasive.

In response to applicant's argument on page 2, second paragraph of the Remarks that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine is to optimize the operation of the cell/sector serviced by the carriers by meeting the minimum grades

of service for the users and maximizing the multi-carrier throughput, which can be found in paragraphs 0014, 0015, 0036, and 0042.

In response to applicant's argument on page 3, second paragraph and page 7, first paragraph of the Remarks that the examiner's conclusion of obviousness is based upon improper hindsight reasoning/reconstruction, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument on page 7, second paragraph of the Remarks that the prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their trachings, it is noted that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CHI PHAM
SUPERVISORY PATENT EXAMINER

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Mew KM
Work Group 2616

CHI PHAM
SUPERVISORY PATENT EXAMINER
7/5/07